11-5805-239-12

This copy is a reprint which includes current pages from Changes 1, 4 and 5.

*TM 11-5805-239-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL POWER SUPPLIES PP-1209/FG, PP-1209A/FG, PP-1209B/FG, AND PP-1209C/FG

Headquarters, Department of the Army, Washington 25, D.C.

4 October 1962

WARNING

1. Be careful when working near the 115-volt ac line connections. Serious injury or death may result from contact with these terminals. Disconnect the ac input cable before making or changing output connections and before removing or installing plug-in units. Always disconnect the ac input cable before performing quarterly maintenance services and inspection.
2. The failure of selenium rectifiers can result in the liberation of poisonous fumes and the deposit of poisonous selenium compounds. When a selenium rectifier burns out or arcs over, the odor is strong. Provide maximum ventilation immediately. *Avoid inhaling the fumes.* Do not touch the damaged rectifier until it has cooled.

DON'T TAKE CHANCES!

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* This manual supersedes so much of TB SIG 284, 25 June 1956, including C1, 30 September 1957; C2, 9 June 1958; and C3, 16 November 1960, that applies to operation and organizational maintenance. It also supersedes those portions of TM 11-5805-239-12P, 23 July 1962, that pertain to maintenance allocation and basic issue items.

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Operator and Organizational Maintenance Manual

POWER SUPPLIES PP-1209/FG, PP-1209A/FG PP-1209B/FG, AND PP-1209C/FG

CHANGE
No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., *9 June 1964*

TM 11-5805-239-12, 4 October 1962, is changed as follows:

Page 3, paragraph 1. Add paragraph 1.1 after paragraph 1.

1.1 Index of Publications

Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to your equipment. DA Pam 310-4 is a current index of technical manuals, technical bulletins, supply manuals, supply bulletins, lubrication orders, and modification work orders that are available through publications supply channels. The index lists the individual parts (-10, -20, -35P, etc.) and the latest changes and revisions of each equipment publication.

Paragraph 2. Delete subparagraphs *d* and *e* and substitute:

d. Reporting of Equipment Manual Improvements. The direct reporting, by the individual user, of errors, omissions, and recommendations for improving this manual, is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Technical Manual Parts Lists or Supply Manual 7, 8, or 9) will be used for reporting these improvements. This form will be completed in triplicate using pencil, pen, or typewriter. The original and one copy will be forwarded direct to Commanding Officer, U. S. Army Electronics Materiel Support Agency, ATTN: SELMS-ML, Fort Monmouth, N. J. 07703. One information copy will be furnished to the individual's immediate supervisor (officer, noncommissioned officer, supervisor, etc.).

Page 22, appendix II. Delete appendix II and substitute:

APPENDIX II

MAINTENANCE ALLOCATION

Section 1. INTRODUCTION

1. General

a. This appendix assigns maintenance functions to be performed on components, assemblies, and subassemblies by the lowest appropriate maintenance echelon.

b. Columns in the maintenance allocation chart are as follows:

(1) *Part or component.* This column shows only the nomenclature or standard item name. Additional descriptive data are included only where clarification is necessary to identify the component. Components, assemblies, and subassemblies are listed in top-down order. That is, the assemblies which are part of a component are listed immediately below that component, and the subassemblies which are part of an assembly are listed immediately below that assembly. Each generation breakdown (components, assemblies, or subasssemblies) is listed in disassembly order or alphabetical order.

(2) *Maintenance function.* This column indicates the various maintenance functions allocated to the echelons.

(a) *Service.* To clean, to preserve, and to replenish lubricants.

(b) *Adjust.* To regulate periodically to prevent malfunction.

(c) *Inspect.* To verify serviceability and to detect incipient electrical or mechanical failure by scrutiny.

(d) *Test.* To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages, meters, etc.

(e) *Replace.* To substitute serviceable components, assemblies, or subassemblies, for unserviceable components, assemblies, or subassemblies.

(f) *Repair.* To restore an item to serviceable condition through correction of a specific failure or unserviceable condition. This function includes, but is not limited to, welding, grinding, riveting, straightening, and replacement of parts other than the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes.

(g) *Align.* To adjust two or more components of an electrical system so that their functions are properly synchronized.

(h) *Calibrate.* To determine, check, or rectify the graduation of an instrument, weapon, or weapons system, or components of a weapons system.

(i) *Overhaul.* To restore an item to *completely serviceable* condition as prescribed by serviceability standards. This is accomplished through employment of the technique of "Inspect and repair Only As Necessary" (IROAN). Maximum utilization of diagnostic and test equipment is combined with minimum disassembly of the item during the overhaul process.

(j) *Rebuild.* To restore an item to a standard as near as possible to original or new condition in appearance, performance, and life ex-

pectancy. This is accomplished through the maintenance technique of complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements using original manufacturing tolerances and/or specifications, and subsequent reassembly of the item.

(3) *1st, 2d, 3d, 4th, 5th echelons.* The symbol X indicates the echelon responsible for performing that particular maintenance operation, but does not necessarily indicate that repair parts will be stocked at that level. Echelons higher than the echelon marked by X are authorized to perform the indicated operation.

(4) *Tools required.* This column indicates codes assigned to each individual tool equipment, test equipment, and maintenance equipment referenced. The grouping of codes in this column of the maintenance allocation chart indicates the tool, test, and maintenance equipment required to perform the maintenance function.

(5) *Remarks.* Entries in this column will be utilized when necessary to clarify any of the data cited in the preceding columns.

c. Columns in the allocation of tools for maintenance functions are as follows:

(1) *Tools required for maintenance functions.* This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

(2) *1st, 2d, 3d, 4th, 5th echelon.* The dagger (†) indicates the echelons normally allocated the facility.

(3) *Tool code.* This column lists the tool code assigned.

2. Maintenance by Using Organizations

When this equipment is used by Signal services organizations organic to theater headquarters or communications zones to provide theater communications, those maintenance functions allocated up to and including fourth echelon are authorized to the organization operating this equipment.

SECTION II. MAINTENANCE ALLOCATION CHART

PART OR COMPONENT	MAINTENANCE FUNCTION	ECHELON 1	2	3	4	5	TOOLS REQUIRED	REMARKS
POWER SUPPLY PP-1209/FG, PP-1209A/FG, PP-1209B/FG, PP-1209C/FG	service	X						Cables and External parts on chassis.
			X				4	
	adjust	X						Operational.
			X				4	Pre-operational.
	inspect	X						External parts.
	test		X				1,4	Sub-assemblies for correct voltage.
				X			2,4	Resistance, current measurements.
					X		2,3,4,5	All tests.
	repair		X					Replace sub-assemblies, fuses, lamps.
				X			4	
	overhaul				X		4	

SECTION III. ALLOCATION OF TOOLS FOR MAINTENANCE FUNCTIONS

TOOLS REQUIRED FOR MAINTENANCE FUNCTIONS	ECHELON 1	2	3	4	5	TOOL CODE	REMARKS
MULTIMETER AN/URM-105		†				1	
MULTIMETER TS-352/U			†	†	†	2	
TEST SET I-199				†	†	3	
TOOL KIT TE-123		†	†	†	†	4	
VARIABLE TRANSFORMER CN-16				†	†	5	

By Order of the Secretary of the Army:

EARLE G. WHEELER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

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DASA (6)
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CofT (1)
CofEngrs (1)
CofSptS (1)
TSG (1)
USA CD Agcy (2)
USAMC (5)
USCONARC (5)
ARADCOM (2)
ARADCOM Rgn (2)
OS Maj Comd (3)
Base Comd (2)
LOGCOMD (2)
USAECOM (7)
USAMICOM (4)
USASCC (4)
MDW (1)
Armies (2)
Corps (2)
USATC AD (2)
USATC Armor (2)
USATC Engr (2)
USATC Inf (2)
USASTC (2)
Instl (2) except
  Ft Monmouth (63)
  Ft Hancock (4)
GENDEP (OS) (2)
Sig Sec, GENDEP (5)
Sig Dep (OS) (12)
A Dep (2) except
  Lexington (12)
  Sacramento (28)
  Tobyhanna (12)
  Ft Worth (8)
Svc Colleges (2)
Br Svc Sch (2)
USMA (2)
WRAMC (2)
USASMCOM (2)
USARSOUTHCOM Sig Agcy (1)
USAERDL (2)
URREL (2)
11th Air Assault Div (3)
USAARMBD (2)
USAARTYBD (2)
USATCDA (2)
USA Trans Tml Comd (1)
Army Tml (1)
USAOSA (1)
POE (1)
AMS (1)
Army Pic Cen (2)
USA Mbl Spt Cen (1)
USA Elct Mat Agcy (12)
Chicago Proc Dist (1)
Sig Fld Maint Shops (3)
USA Elct RD Actv
  Ft Huachuca (2)
  White Sands (13)
WSMR (5)
Yuma PG (2)
USA Corps (3)
Letterkenny A Dep (5)
Sharpe A Dep (3)
Savanna A Dep (5)
Navajo A Dep (5)
Charleston A Dep (3)
USASCS (100)
USASA Tng Cen & Sch (20)
Oakland A Tml (5)
Ft Gordon (5)
Ft Huachuca (10)
507th USASA Gr (5)
508th USASA Gr (5)
318th USASA Bn (5)
319th USASA Bn (5)
320th USASA Bn (5)
321st USASA Bn (5)
177th USASA Co (5)
182nd USASA Co (5)
183rd USASA Co (5)
184th USASA Co (5)
226th USASA Co (5)
251st USASA Co (5)
252nd USASA Co (5)
600th USASA Co (5)
77th USASA Unit (5)
1st USASA Fld Sta (5)
2nd USASA Fld Sta (5)
4th USASA Fld Sta (5)
9th USASA Fld Sta (5)
12th USASA Fld Sta (5)
13th USASA Fld Sta (5)
14th USASA Fld Sta (5)

Units org under fol TOE:
(2 copies each UNOINDC)

11-16
11-56
11-57
11-97
11-98
11-116
11-117
11-155
11-157
11-500 (AA-AE) (4)
11-557
11-587
11-592
11-597
32-52
32-57
32-67
32-68
32-500

NG: None.

USAR: None.

For explanation of abbreviations used, see AR 320-50.

Changes in force: C 1, C 2, C 3, and C 4

TM 11-5805-239-12
C 4

CHANGE
NO. 4

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D C 5 *November 1974*

Operator's and Organizational Maintenance Manual
(Including Repair Parts and Special Tools Lists)
POWER SUPPLIES PP-1209/FG, PP-1209A/FG, PP-1209B/FG,
PP-1209C/FG, AND PP-1209D/FG
FSN 5805-342-3559

TM 11-5805-239-12, 4 October 1962, is changed as follows:

Title is changed as shown above.

Page 27. Delete appendix IV and substitute:

APPENDIX IV

ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LISTS

Section I. INTRODUCTION

1. Scope

This appendix lists repair parts and special tools required for the performance of organizational maintenance of the PP-1209/FG, PP-1209A/FG, PP-1209B/FG, PP-1209C/FG, and PP-1209D/FG. The PCCN for the equipment is GCWAJG for all models. This appendix is current as of 18 September 1974.

2. General

This repair parts and special tools list is divided into the following sections:

a. Prescribed Load Allowance (PLA) — Section II. Not applicable.

b. Repair Parts List — Section III. A list of repair parts authorized for the performance of maintenance at the organizational level. This repair parts list is arranged in alphabetical order.

c. Special Tools, Test and Support Equipment — Section IV. Not applicable.

d. Index — Federal Stock Number and Reference Number Cross-Reference to Figure and Item Number — Section V. A list, in ascending numerical sequence, of all Federal stock numbers appearing in the listings, followed by a list, in alphanumeric sequence, of all reference numbers appearing in the listings. Federal stock number and reference numbers are cross-referenced to each illustration figure and item number or reference designation appearance.

3. Explanation of Columns

The following provides an explanation of columns in the tabular lists—

a. Source, Maintenance, and Recoverability Codes (SMR).

(1) *Source code.* Indicates the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are—

Code	*Explanation*
PA	Item procured and stocked for anticipated or known usage.
PB	Item procured and stocked for insurance purposes because essentiality dictates that a minimum quantity be available in the supply systems.
PC	Item procured and stocked and which otherwise would be coded PA except that it is deteriorative in nature.
PD	Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issue or outfittings. Not subject to automatic replenishment.
PE	Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activities.
PF	Support equipment which will not be stocked but which will be centrally procured on demand.
PG	Item procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item peculiar to the equipment which because of probable discontinuance or shutdown of production facilities would prove uneconomical to reproduce at a later time.
KD	An item of depot overhaul/repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul or repair.
KF	An item of a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at organizational or direct support or general support levels of maintenance.
KB	Item included in both a depot overhaul/repair kit and a maintenance kit.
MO	Item to be manufactured or fabricated organizational level.
MF	Item to be manufactured or fabricated at direct support maintenance level.
MH	Item to be manufactured or fabricated at general support maintenance level.
MD	Item to be manufactured or fabricated at depot maintenance level.
AO	Item to be assembled at organizational level.
AF	Item to be assembled at direct support maintenance level.

Code *Explanation*

AH—Item to be assembled at general support maintenance level.

AD—Item to be assembled at depot maintenance level.

XA—Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.

XB—Item is not procured or stocked. If not available through salvage, requisition.

XC—Installation drawing, diagram instruction sheet, field service drawing, that is identified by manufacturers' part number.

XD—Support items can be requisitioned with justification.

NOTE

Cannibalization or salvate may be used as a source of supply for any items source coded above except those coded XA and aircraft support items as restricted by AR 700—42.

(2) *Maintenance code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code Format as follows—

(*a*) *Use* (*third position*). The maintenance code entered in the third position indicates the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position indicates one of the following levels of maintenance.

Code *Application/Explanation*

O—Support item is removed, replaced, used at the organizational level of maintenance.

NOTE

A code "C" may be used in this position to denote crew or operator maintenance performed within organizational maintenance.

F—Support item is removed, replaced, used at the direct support maintenance level.

H—Support item is removed, replaced, used at the general support maintenance.

D—Support items that are removed, replaced, used at depot only.

(*b*) (*fourth position*). The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). When a maintenance code is not used a dash (-) sign is entered. For multi-service equipment/systems or when a code is entered, this position will contain one of the following maintenance codes as assigned by the service(s) that require the code—

Code *Application/Explanation*

O—The lowest maintenance level capable of complete repair of the support item is the organizational level.

F—The lowest maintenance level capable of complete repair of the support item is direct support.

H—The lowest maintenance level capable of complete repair of the support item is general support.

D—The lowest maintenance level capable of complete repair of the support item is the depot level.

L—Repair restricted to designated Specialized Repair Activity.

Z—Non-repairable. No repair is authorized.

B—No repair is authorized. The item may be reconditioned by adjusting, lubricating, etc., at the user level. No parts or special tools are procured for the maintenance of this item.

(3) *Recoverability code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the uniform SMR Code Format as follows—

Code *Explanation*

Z—Nonrepairable item. When unserviceable, condemn and dispose at the level indicated in the first digit of the maintenance code.

O—Repairable item. When uneconomically repairable, condemn and dispose at organizational level.

F—Repairable item. When uneconomically repairable, condemn and dispose at the direct support level.

H—Repairable item. When uneconomically repairable, condemn and dispose at the general support level.

D—Repairable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.

L—Repairable item. Repair, condemnation, and disposal not authorized below depot/Specialized Repair Activity level.

A—Item requires special handling or condemnation procedures because of specific reasons (i.e., precious metal content, high

dollar value, critical material or hazardous material).

b. Federal Stock Number. Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description. Indicates the Federal item name and a minimum description required to identify the item. The last line indicates the reference number followed by the applicable Federal Supply Code for Manufacturer (FSCM) in parentheses. The FSCM is used as an element in item identification to designate manufacturer or distributor or Government agency, etc., and is identified in SB 708-42.

d. Unit of Measure (U/M). Indicates the standards or basic quantity by which the listed item is used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation; e.g., ea, in, pr, etc., and is the basis used to indicate quantities and allowances in subsequent columns. When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

e. Quantity Incorporated in Unit. This column indicates the quantity of the item used in the equipment.

f. 15-Day Organizational Maintenance Allowance.

(1) The repair parts indicated by an asterik in the allowance column represent those authorized for use at the organizational category, and will be requisitioned on an "as required" basis, until stockage is based on demand in accordance with AR 710-2.

(2) Major Army commanders are authorized to approve reduction in the range of support items authorized for use in units within their commands. Recommendations for increase in range of items authorized for use will be forwarded to Commander, US Army Electronics Command, ATTN: AMSEL-MA-CW, Fort Monmouth, N.J., 07703. Any changes approved will be reflected in a revision to the RPSTL.

(3) Allowance quantities are indicated in the special tools list section for special tools, TMDE, and other equipment.

g. Illustration. This column is divided as follows:

(1) *Figure number.* Indicates the figure number of the illustration on which the item is shown in TM 11-5805-239-35.

(2) *Item number.* Indicates the item number or reference designation used to reference the item in the illustration.

4. Special Information

Usable on codes are included in column 3. Uncoded items are applicable to all models. Identification of the usable on codes used in this publication are—

Code	*Used on*
BQ1	PP-1209/FG
BQ2	PP-1209A/FG
BQ3	PP-1209B/FG
BQ4	PP-1209C/FG
BQ5	PP-1209D/FG

5. Location of Repair Parts

a. This appendix contains one cross-reference index (sec V) to be used to locate a repair part when either the Federal stock number or reference number (manufacturer's part number) is known. The first column in the index is prepared in numerical or alphanumeric sequence in ascending order. The reference numbers (manufacturer's part numbers) are listed immediately following the last listed Federal stock number in the index of Federal stock numbers.

b. When the Federal stock number or reference number is known, follow the procedures given in (1) and (2) below.

(1) Refer to the index of Federal stock numbers (sec V) and locate the Federal stock number or reference number. The FSN and reference number are cross-referenced to the applicable figure and item number or reference designation.

(2) Refer to the repair parts list (sec III) and locate the figure number (col 7a) and item number or reference designation (col 7b) as noted in the FSN index.

c. When the figure and item number or reference designation are know, scrutinize columns 7a and 7b of the repair parts list (sec III) until the item is located.

d. When the FSN, reference number, figure number, item number and reference designation are not know, scrutinize column 3 of the repair parts list (sec III), which is arranged in alphabetical order.

6. Abbreviations

Not applicable.

(Next printed page is 6)

SECTION III

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(7) ILLUSTRATION (a) FIGURE NO	(b) ITEM NO
XDDZZ		CONNECTOR, PLUG, ELECTRICAL P3 USED AS AC... INPUT PLUG PARALLEL, POLARIZED 7059 (83315)	EA	1	*	*	*	*	5-1	P3
PACZZ	5920-043-2641	FUSE, CARTRIDGE F1 0.25 AMP 250V F02GR250A (81349)	EA	8	*	*	*	*	2-1	F1
PACZZ	5920-010-6652	FUSE, CARTRIDGE F2 3AMP, 250 V F02A2503A (81349)	EA	1	*	*	*	*	2-1	F2
XDCZZ		KNUB MP1 U/W VARIABLE RESISTOR R3 ..... S292-3L (75376)	EA	8	*	*	*	*		MP1
PADDU	6130-882-3619	POWER SUPPLY SUB-ASSEMBLY NO-REF-DESIG USED AS PLUG-IN UNIT J3MKM1 (05484) BQ1, BQ2	EA	8	*	*	*	*	5-1	
PADDD	5905-685-5981	POWER SUPPLY SUB-ASSEMBLY NO-REF-DESIG USED AS PLUG-IN UNIT F2010A A2102 (09304) BQ3	EA	8	*	*	*	*	5-1	
PADZZ	6130-882-3619	POWER SUPPLY SUB-ASSEMBLY NO-REF-DESIG USED AS PLUG-IN UNIT 867981 (00426) BQ4, BQ5	EA	8	*	*	*	*	5-1	

SECTION V

INDEX - FEDERAL STOCK NUMBER AND REFERENCE NUMBER
CROSS-REFERENCE TO FIGURE AND ITEM NUMBER

STOCK NUMBER	FIGURE NO.	ITEM NO.
5805-885-5981	5-1	
5920-010-6652	2-1	F2
5920-043-2641	2-1	F1
6130-882-3619	5-1	

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO.
A2102	09004	5-1	
F02A2503A	81349	2-1	F2
F02GR250A	81349	2-1	F1
J3MKM1	05484	5-1	
S292-3L	75376		MP1
7059	83315	5-1	P3
867981	00426	5-1	

By Order of the Secretary of the Army:

FRED C. WEYAND
General, United States Army
Chief of Staff

VERNE L. BOWERS
Major General, United States Army
The Adjutant General

Distribution:
Active Army:
USASA (2)
CNGB (1)
Dir of Trans (1)
COE (1)
TSG (1)
USAARENBD (1)
USAMB (10)
AMC (1)
TRADOC (2)
ARADCOM (2)
ARADCOM Rgn (2)
OS Maj Comd (4)
LOGCOMDS (3)
MICOM (2)
TECOM (2)
USACC-CONUS (2)
USASATC&S (2)
USACC (4)
MDW (1)
Armies (2)
Corps (2)
HISA (Ft Monmouth) (18)
Svc Colleges (1)
USASESS (5)
USAADS (2)
USAFAS (2)
USAARMS (2)
USAIS (2)
USAES (2)
USAINTCS (3)
WRAMC (1)
ATS (1)
Fort Gordon (10)
Fort Huachuca (10)
WSMR (1)
Fort Carson (5)
Ft Richardson (ECOM Ofc) (2)
Army Dep (1) except
LBAD (14)
SAAD (30)
TOAD (14)
ATAD (10)
USA Dep (2)
Sig Sec USA Dep (2)
Sig Dep (2)
SigFLDMS (1)
USAERDAA (1)
USAERDAW (1)
MAAG (1)
USARMIS (1)
Units org under fol TOE:
(1 copy each unit)
11-95
11-97
11-98
11-116
11-117
11-127
11-302
11-500 (AA-AC)
32-52
32-57
32-67
32-500

NG: None
USAR: None
For explanation of abbreviations used, see AR 310-50.

GPO 819-095

CHANGE NO. 5

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 15 December 1983

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS) POWER SUPPLIES PP-1209/FG, PP-1209A/FG, PP-1209B/FG, PP-1209C/FG, AND PP-1209D/FG (NSN 5805-00-823-2729)

TM 11-5805-239-12, 4 October 1962, is changed as follows:

Title is changed as shown above.

Page 3, paragraph 1. After the first sentence add "The PP-1209D/FG is functionally identical to the other models."

Paragraphs 1.1, 2 and 2.1 are superseded as follows:

1.1. Consolidated Index of Army Publications and Blank Forms

Refer to the latest issue of DA Pam 310-1 to determine whether there are new editions, changes or additional publications pertaining to the equipment.

2. Maintenance Forms, Records, and Reports

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 725-11-2/DLAR 4140.55/NAVMATINST 4355.73A/AFR 400-54/MCO 4430.3F.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

2.1. Reporting Errors and Recommending Improvements

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703. In either case, a reply will be furnished direct to you.

Add paragraphs 2.2, 2.3 and 2.4 after paragraph 2.1.

2.2. Reporting Equipment Improvement Recommendations (EIR)

If your power supply needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703. We'll send you a reply.

2.3. Administrative Storage

Administrative Storage of Equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage the PMCS should be performed to assure operational readiness. Disassembly and repacking of equipment for shipment or limited storage are covered in chapter 4 and TM 740-90-1.

2.4. Destruction of Army Electronics Materiel

Destruction of Army electronics material to prevent enemy use shall be in accordance with TM 750-244-2.

Page 4, paragraph 5. Delete the first sentence.

Page 10, paragraph 9, subparagraph a. In the second sentence delete "(para 2c)." Subpara-

*This change supersedes C2, 20 July 1967 and C3, 21 Dec 1973.

graph b. Delete the second sentence.

Page 13. Delete section 1 and substitute:

Section I. General

16. Scope of Maintenance

a. Operator/Crew. The maintenance duties assigned to the operator of the PP-1209(*)/FG are as follows:

(1) Preventive maintenance checks and services (para 20).

(2) Cleaning (para 21a-c).

(3) Replacement of fuses (F1 and F2). The trouble resulting in a blown fuse must be determined by Organizational Maintenance or higher before a fuse is replaced.

b. Organizational. Maintenance of the PP-1209(*)/FG consists of the following:

(1) Preventive maintenance checks and services (para 22).

(2) Troubleshooting (para 24 and 25).

(3) Touchup painting (para 26).

(4) Replacement of pluckout items (para 27).

17. Tools, Materials, and Test Equipment

No tools or test equipment is required for operator and organizational maintenance. The following materials are required:

a. Operator and Organizational.

(1) Cleaning solvent trichlorotrifluoroethane (NSN 6850-00-105-3084).

(2) Cleaning cloth (cloth, textile, lintless).

b. Organizational.

(1) Fine sandpaper (Ordnance stock No. 42-P-1154-20, or equal).

(2) Brush (brush, typewriter, Quarter-master stock No. 53-B-26100, or brush, paint, Engineers stock No. 38-4567.300.200, or equal).

(3) Materials or cleaning and repainting (required only if touchup painting is necessary). Refer to TM 5-618 for information on materials required for touchup painting.

Delete section II and substitute:

Section II. OPERATOR/CREW AND ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES

18. General

NOTE

Refer to TM 750-244-2 for proper procedures for destruction of this equipment to prevent enemy use.

a. Operator/crew preventive maintenance is the systematic care, servicing and inspection of equipment to prevent the occurrence of trouble, to reduce downtime, and to maintain equipment in serviceable condition. To be sure that your power supply is always ready for your mission, you must do scheduled preventive maintenance checks and services (PMCS).

(1) BEFORE OPERATION, perform your B PMCS to be sure that your equipment is ready to go.

(2) When an item of equipment is reinstalled after removal, for any reason, perform the necessary B PMCS to be sure the item meets the readiness reporting criteria.

(3) Use the ITEM NO. column in the PMCS table to get the number to be used in the TM ITEM NO. column on DA Form 2404 (Equipment Inspection and Maintenance Worksheet) when you fill out the form.

b. Organizational preventive maintenance procedures are designed to help maintain equipment in serviceable condition. They include items to be checked and how to check them. These checks and services, described in paragraph 21, outline inspections that are to be made at specific quarterly (Q) intervals.

c. Routine checks like CLEANING, DUSTING, WASHING, CHECKING FOR FRAYED CABLES, STOWING ITEMS NOT IN USE, COVERING UNUSED RECEPTACLES, AND CHECKING FOR LOOSE NUTS AND BOLTS are not listed as PMCS checks. They are things that you should do any time you see they must be done. If you find a routine check like one of those listed in your PMCS, it is because other

operators reported problems with this item.

NOTE

When you are doing any PMCS or routine checks, keep in mind the warnings and cautions.

WARNINGS

- Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use gloves which the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.
- Compressed air is dangerous and can cause serious bodily harm if protective means or methods are not observed to prevent a chip or particle (of whatever size) from being blown into the eyes or unbroken skin of the operator or other personnel. Goggles must be worn at all times while cleaning with compressed air. Compressed air shall not be used for cleaning purposes except where reduced to less than 29 pounds per square inch gage (psig) and then only with effective chip guarding and personnel protective equipment. Do not use compressed air to dry parts when trichlorotrufluoroethane has been used.

NOTES

The PROCEDURES column in your PMCS charts instruct how to perform the required checks and services. Carefully follow these instructions and, if tools are needed or the chart so instructs, get organizational maintenance to do the necessary work.

If your equipment must be in operation all the time, check those items that can be checked and serviced without disturbing operation. Make the complete checks and services when the equipment can be shut down.

d. Deficiencies that cannot be corrected must be reported to higher category maintenance personnel. Records and reports of preventive maintenance must be made in accordance with procedures given in TM 38-750.

19. Operator/Crew Preventive Maintenance Checks and Services

Perform before operation PMCS if you are operating the item for the first time.

NOTES

The checks in the interval column are to be performed in the order listed.

The terms "ready/available" and "mission capable" refer to the same status — Equipment is on hand and is able to perform its combat missions (see TM 38-750).

20. Operator/Crew Preventive Maintenance Checks and Services Chart

B — Before

Item No.	Interval	Item to be Inspected	Procedures: Check for and have repaired or adjusted as necessary	Equipment is not Ready/Available If:
	B			
1	*	Mission Essential Equipment	Check for completeness and satisfactory condition of the equipment. Report missing items.	Available equipment is insufficient to support the combat mission.
2	*	Blown Fuse Indicators	Check blown fuse indicators by removing each dc output fuse and checking that its indicator lights.	Light inoperative and replacement light does not work.

*Do this check before each deployment to a mission location. This will permit any existing problems to be corrected before the mission starts. The check does not need to be done again until redeployment.

21. Cleaning

WARNING

Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prlonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use gloves which the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

Inspect the front panel and the exposed surfaces of the main chassis assembly and the plug-in units. All exterior surfaces should be free of dust, dirt, grease, and fungus. Clean the equipment as follows:

a. Remove dust and loose dirt with a clean, soft cloth.

b. Clean the front panel, blown fuse indicators, output control rheostat knobs, and fuseholder caps with a clean, soft cloth. A cloth *slightly* dampened (not wet) with water may be used if necessary. If water is used, wipe surfaces thoroughly dry with a clean, dry cloth.

c. Remove grease, fungus, and ground-in dirt from exterior metal surfaces of the main chassis assembly and plug-in units with a cloth dampened with cleaning compound. Wipe dry with a clean, dry cloth. Do not use cleaning compound to clean the ac input cable and do not allow it to get on any wiring.

d. Remove dust and dirt from jacks and plugs with a brush. Remove corrosion from plug contacts with fine sandpaper and then brush or wipe with a clean, dry cloth.

22. Organizational Preventive Maintenance Checks and Services Chart

Q — Quarterly

Item No.	Interval Q	Item to be Inspected	Procedures
1	•	Fuse Indicators	Check fuse indicators: a. Remove position 1 dc output fuse. Indicator above fuse holder should light. b. Reinstall fuse. Indicator should go out. c. Repeat a and b above for positions 2 through 8.
2	•	Control Rheostats	Check output of each control rheostat as described in paragraphs 14 and 15.

Paragraph 23. Paragraph 23 deleted.

Page 17, paragraph 24. Delete paragraph 24 and substitute:

24. General

Troubleshooting of the PP-1209(*)/FG is based on the operational checks contained in the organizational preventive maintenance checks and services chart (para 22). To troubleshoot the equipment, perform all operations indicated in the chart in the order given.

If an abnormal condition or result is observed, refer to the troubleshooting chart (para 25). Perform the checks and corrective actions indicated in the troubleshooting chart. If the indicated corrective measures do not eliminate the trouble, higher echelon maintenance is required.

Page 18, paragraph 25, Troubleshooting chart. In the Item No. column delete "13" and substitute "1", delete "14" and substitute "2" and delete "15" and substitute "3".

Page 19. Change the title of chapter 4 to "SHIPMENT AND LIMITED STORAGE".

Page 20. Delete section II in its entirety.

Page 21, appendix I. Delete appendix I and substitute:

APPENDIX I

REFERENCES

The following is a list of applicable references available to the operator and organizational maintenance personnel of the PP-1209(*)/FG.

DA Pam 310-1	Consolidated Index of Army Publications and Blank Forms.
TB 750-10	Painting, Replating, and Preserving Instructions for Communications Security Equipment.
TM 5-618	Paints and Protective Coatings.
TM 38-750	The Army Maintenance Management System (TAMMS).
TM 43-0139	Painting Instructions for Field Use.
TM 740-90-1	Administrative Storage of Equipment.
TM 750-244-2	Procedures for Destruction of Electronics Materiel to Prevent Enemy Use.

Page 26. Appendix III. Appendix III deleted.

By Order of the Secretary of the Army:

JOHN A. WICKHAM JR.
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Major General, United States Army
The Adjutant General

DISTRIBUTION:

To be distributed in accordance DA Form 12-51C, Operator Maintenance requirements for PP-1209/FG.

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1. Scope

a. This technical manual describes Power Supplies PP-1209/FG, PP-1209A/FG, PP-1209B/FG, and PP-1209C/FG and covers the installation, operation, and operator's (first echelon) and organizational (second echelon) maintenance of these equipments. It includes instructions for preventive and periodic maintenance services, cleaning, inspecting, and checking the equipment in accordance with TM 38-750, and for the troubleshooting and repair functions to be performed at the organizational level. The maintenance allocation chart (MAC) is contained in appendix II and the basic issue items list (BIIL) is contained in appendix III.

b. Official nomenclature including the symbol (*) is used to designate any or all models of the equipment covered in this manual. Thus, Power Supply PP-1209(*)/FG represents Power Supplies PP-1209/FG, PP-1209A/FG, PP-2109B/FG, and PP-1209C/FG.

2. Forms and Records

a. Reports of Unsatisfactory Equipments. Fill out DA Form 2407 (Maintenance Request) in accordance with instructions in TM 38-750 and forward it to: Commanding Officer, U. S. Army Electronics Materiel Support Agency, ATTN: SELMS-PIE, Fort Monmouth, New Jersey. The form should be filled out and forwarded to report:

(1) Receipt of defective equipment (use DD Form 6 (*b* below) if defect is due to damaged or improper shipment).

(2) Equipment deficiencies (deadlined equipments).

(3) Equipment shortcomings (operable, but at less than rated capability or efficiency).

(4) Equipment improvement suggestions and recommendations.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700-58 (Army).

c. Reports of Comments on Basic Issue Items List (Appx III) and Maintenance Allocation Chart (Appx II). Fill our and forward DA Form 2028 (Recommended Changes to DA Technical Manual Parts Lists or Supply Manual 7, 8, or 9) direct to: Commanding Officer, U.S. Army Electronics Materiel Support Agency, ATTN: SELMS-ML, Fort Monmouth, New Jersey.

d. Comments on Manual. Forward all other comments on this publication direct to: Commanding Officer, U.S. Army Electronics Materiel Support Agency, ATTN: SELMS-MPP-4, Fort Monmouth, New Jersey. (DA Form 1598 (Record of Comments on Publication), DA Form 2028 (*c* above), DD Form 96 (Disposition Form), other suitable forms, or letter may be used.)

e. Index of Equipment Publications. Refer to DA Pamphlet 310-4 to determine what Changes to or revisions of this publication are current.

Section II. DESCRIPTION AND DATA

3. Purpose and Use

a. Purpose. The PP-1209(*)/FG provides eight individual sources of direct current (dc) at any selected value up to 100 milliamperes (ma) suitable for the operation of eight teletypewriter circuits. Each source may be either positive or negative, as desired.

b. Use. The PP-1209(*)/FG is used to furnish dc loop current for teletypewriter equipment associated with Telegraph Terminal Set AN/FGC-5. It may be used with

similar equipments that require a dc supply within the available ranges of current and voltage (para 4).

4. Technical Characteristics

Ac input	105- to 125-volt, 60-cycle-per-second, single-phase.
Dc output (each section):	
Voltage	129 to 155 volts ±10 percent (varies with current).
Current	Variable 0 to 100 milliamperes as follows:

Milliamperes	Volts
0	155
10	150
20	146
30	144
40	142
50	139
60	137
70	135
80	133
90	131
100	129

Rectification:	
Type	Half-wave.
Rectifier used:	
PP-1209/FG	Selenium.
PP-1209A/FG, PP-1209B/FG, and PP-2109C/FG.	Semiconductor device (silicon diode).

5. Components

The components of Power Supplies PP-1209/FG, PP-1209A/FG, PP-1209B/FG, and PP-1209C/FG are listed in the basic issue items list (appx III). The PP-1209/FG is illustrated in figure 1; the PP-1209A/FG is similar in appearance. The PP-1209B/FG is illustrated in figure 2; the PP-1209C/FG is similar in appearance.

6. Description

Power Supply PP-1209(*)/FG consists of a main chassis assembly that includes a front panel, and eight identical plug-in units. The assembled power supply can be mounted in a standard, 19-inch rack.

a. Main Chassis Assembly (fig. 1 and 2). Eight each output control rheostats, dc output fuses, and blown fuse indicators and one alternating-current (ac) input fuse are mounted on the front panel of the main chassis. Sixteen eight-contact receptacle connectors (jacks) are mounted in pairs, one above the other, on the rear of the main chassis (fig. 3 and 4) for connecting the eight plug-in units (*b* below) to the circuits of the main chassis assembly. An ac input cable is connected at the right-hand side of the main chassis. A dc output terminal board is mounted on one side of the PP-1209/FG (Order No. 26331-Phila-55 only) and on the rear on all other models.

b. Plug-In Units (fig. 3 and 4). Each of the eight identical plug-in units is a half-wave rectifier assembly that consists of a rectifying device and the necessary associated parts mounted in a chassis. Two eight-contact plug connectors are mounted one above the other on the front of each plug-in unit to connect it to the jacks of the main chassis assembly (*a* above).

7. External Differences in Models

Item	PP-1209/FG (Order No. 26331-Phila-55)	PP-1209/FG (Order No. 42902-Phila-57)	PP-1209A/FG	PP-1209B/FG	PP-1209C/FG (Order No. 10473-PP-61)	PP-1209C/FG (Order No. 20291-PP-62)
Blown fuse indicators.	White	White	White	Red	Red	Red.
Retaining strap for plug-in units.	Not used	Not used	Not used	Not used	Not used	Used.
Output terminal board.	Mounted at side of main chassis assembly.	Mounted at rear of main chassis assembly.	Mounted at rear of main chassis assembly.	Mounted at rear of main chassis assembly.	Mounted at rear of main chassis assembly.	Mounted at rear of main chassis assembly.

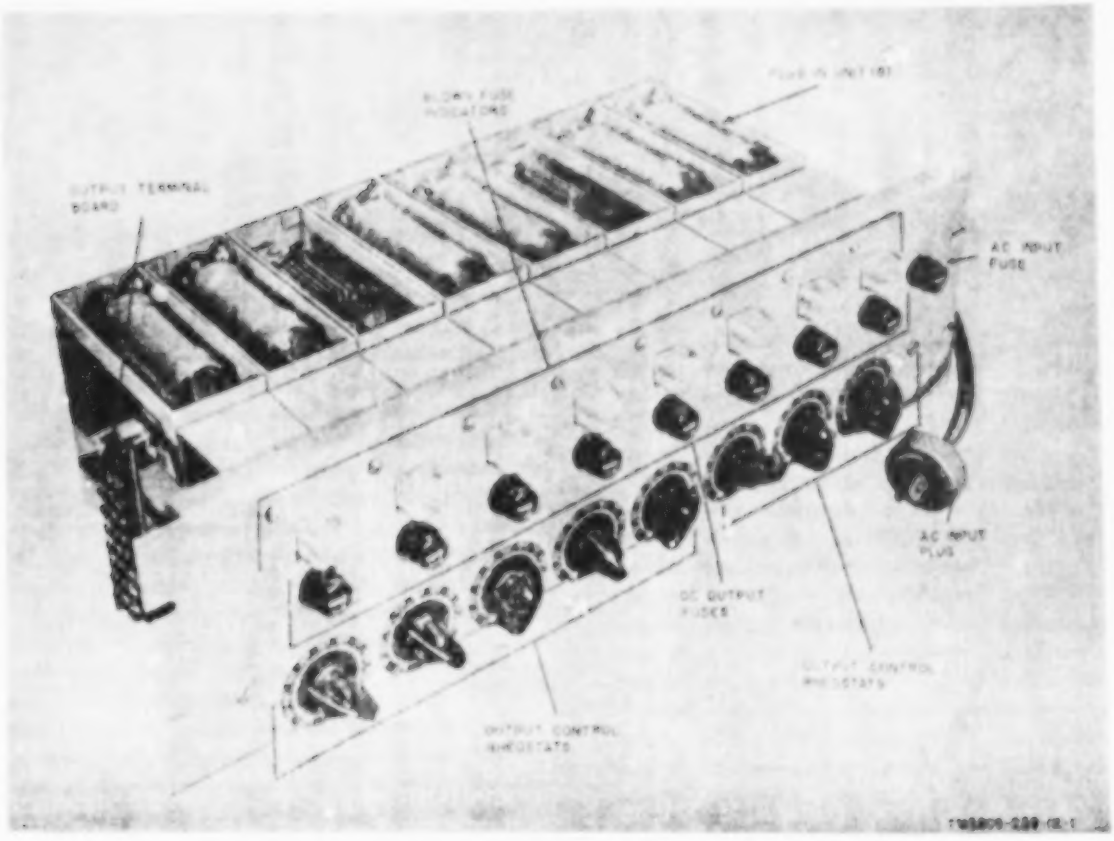

Figure 1. Power Supply PP-1209/FG (less spare fuses).

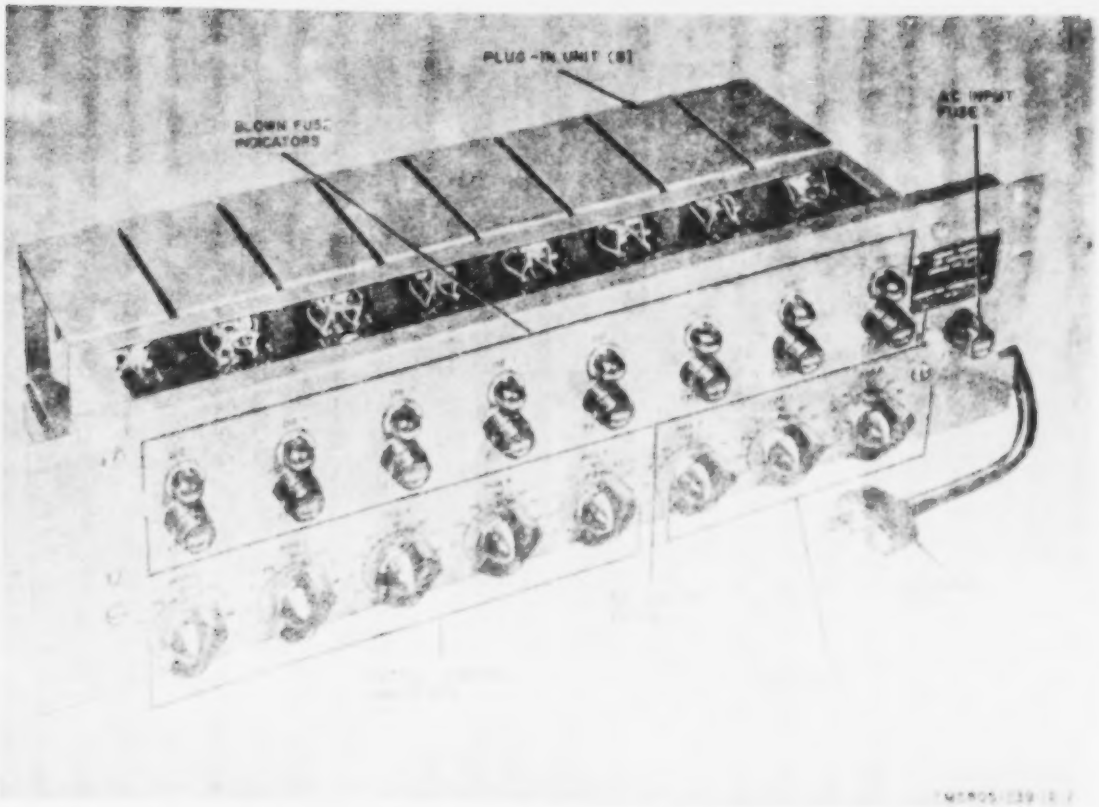

Figure 2. Power Supply PP-1209B/FG (less spare fuses).

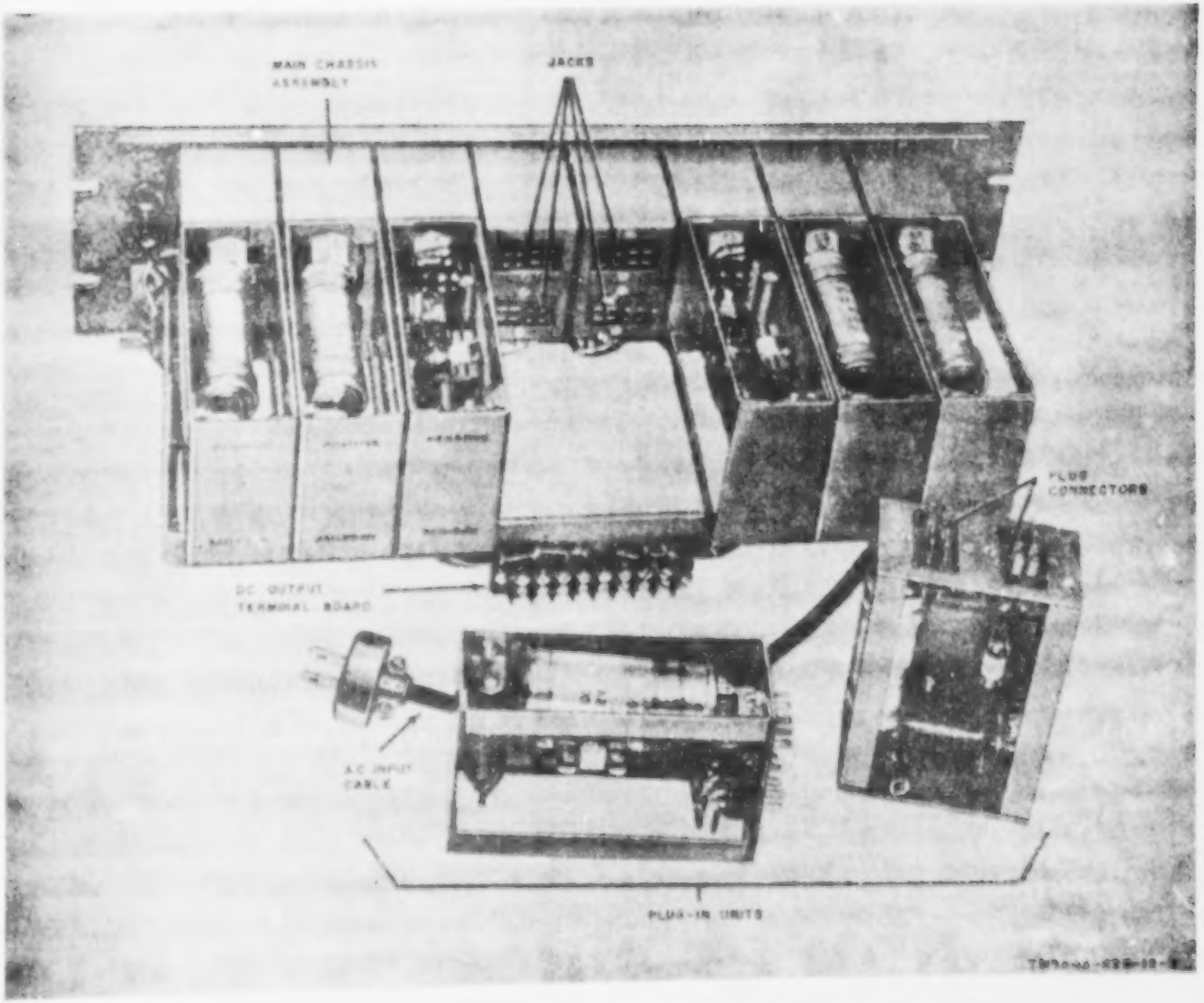

Figure 3. Power Supply-PP-1209A/FG, rear view, two plug-in units removed.

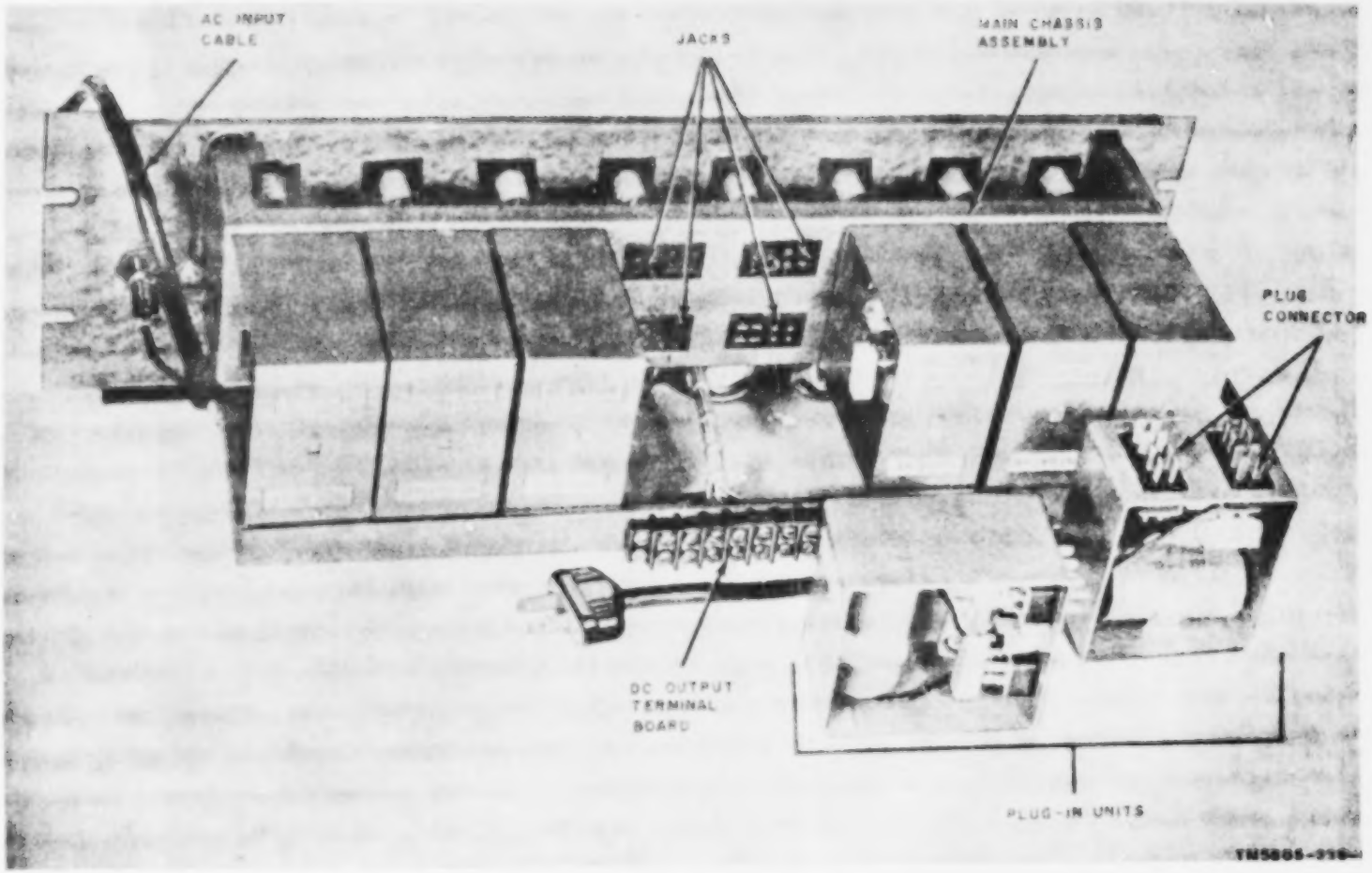

Figure 4. Power Supply PP-1209B/FG, rear view, two plug-in units removed.

CHAPTER 2

INSTALLATION AND OPERATION

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

8. Unpacking

(fig. 5)

a. Packaging Data. For oversea shipment, the PP-1209(*)/FG is packed, with bags of desiccant, in a fiberboard carton, which is sealed and then overwrapped with moisture-vaporproof barrier material. The sealed carton containing the power supply, together with the spare fuses, which are wrapped for protection and packaged separately, then is overwrapped with moisture-vaporproof barrier material and placed in a second (outer) fiberboard carton and all seams and closures are sealed with water-resistant, pressure-sensitive tape. The packaged equipment is packed in a nailed wodden box bound with metal strapping. For domestic shipment, the packaging and packing method used may vary, depending on the source. Packed for oversea shipment, the PP-1209(*)/FG measures approximately 29 by 10 by 9 inches, has a volume of 1.5 cubic feet, and weighs about 45 pounds.

b. Removing Contents. Follow the procedures in (1) through (8) below that are applicable to the type of packaging encountered

(1) Cut the metal strapping just below the cover of the wooden box. Fold back the strapping.

(2) Remove the nails (use a nailpuller) that secure the top, one side, and

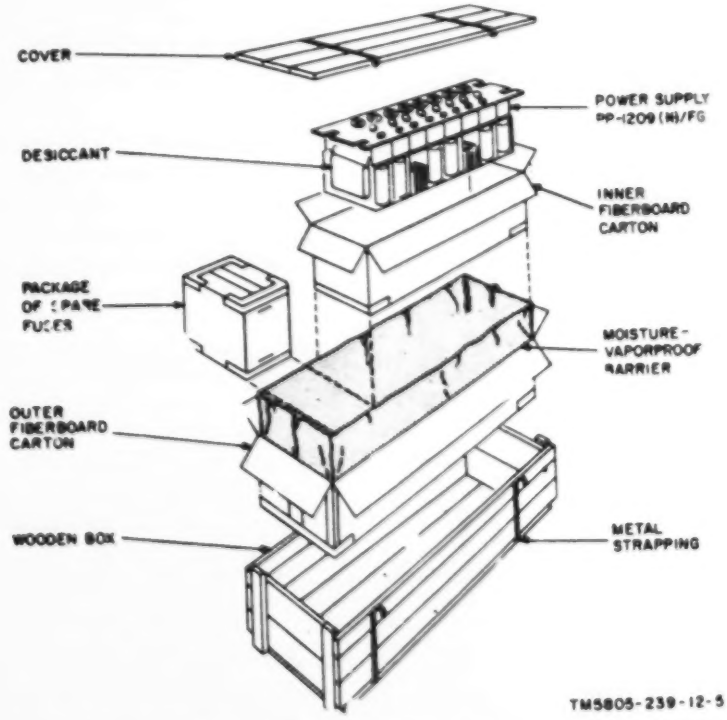

Figure 5. Power Supply PP-1209(*)/FG, typical packaging diagram, oversea shipment.

one end of the wooden box. Remove the top, side, and end.

(3) Lift the fiberboard carton out of the wooden box.

(4) Slit the sealing tape and fold back the flaps of the carton.

(5) Slit open the moisture-vaporproof barrier and lift out the inner fiberboard carton that contains the equipment and the spare parts.

(6) Carefully slit the sealing tape and open the inner carton.

(7) Remove the power supply and the package containing the spare fuses.

(8) Open the package that contains the spare parts.

9. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (para 2c).

b. See that the equipment is complete by checking it against the packing slip. If a packing slip is not available, check the equipment against the basic issue items list (appx III). Report all discrepancies on DA Form 2407.

Note: Shortage of a minor item, such as a spare fuse, that does not affect the proper functioning of the equipment should not prevent use of the equipment.

c. If the equipment has been used or reconditioned, see whether it has been changed by a modification work order (MWO). If the equipment has been modified, the MWO number will appear on the front panel near the nomenclature plate. Check to see whether the MWO number (if any) and appropriate notations concerning the modification have been entered in the technical manual covering the equipment.

Note: Current MWOs applicable to the equipment are listed in DA Pamphlet 310-4.

10. Componenent Dimensions

The PP-1209(*)/FG has a volume of approximately 0.44 cubic feet and weighs about 30 pounds. The dimensions of the various models of the equipment are given in the chart below.

Model	Overall dimensions (in.)		
	Height	Width	Depth
PP-1209/FG	5-7/32	19	8-1/2
PP-1209A/FG	5-7/32	19	7-11/16
PP-1209B/FG	5	19	7
PP-1209C/FG	5-7/32	19	6-7/8

11. Checking Fuses

Normally, the PP-1209(*)/FG is shipped with a fuse of the correct value installed in each of the nine fuseholders located on the front panel (fig. 1 and 2). Eight 0.25-ampere, 250-volt dc output fuses (F1) and one 3-ampere, 250-volt ac input fuse (F2) are used. Check to see that there is a fuse of the proper rating in each fuseholder.

12. Placement of Equipment

Mount the PP-1209(*)/FG in a standard, 19-inch rack. Allow sufficient space at the rear of the unit to permit servicing and removing and replacing the plug-in units.

Section II. OPERATING INSTRUCTIONS

13. Controls, Indicators, and Connectors

Control, indicator, or connector	Function
Output control rheostats (8) (fig. 1 and 2).	Adjust the dc output current of the individual plug-in units to the required value (0 to 100 ma).
Blown fuse indicators (fig. 1 and 2).	Indicate the condition of the dc output fuses. Each blown fuse indicator corresponds with the dc output fuse immediately below it. When lighted, the blown fuse indicator indicates that the associated fuse is either blown or missing. When unlighted, it indicates that the associated fuse is in satisfactory condition.

Control, indicator, or connector	Function
Jacks (fig. 3 and 4)	Connect circuits of main chassis to plug-in units.
Plug connectors (fig. 3 and 4)	Connect plug-in units to circuits of main chassis.
Output terminal board (fig. 1 and 4).	Provides terminals for connecting eight separate loads to the eight individual dc outputs of the PP1209(*)/FG.
Ac input plug (fig. 1 and 2).....	Connects the PP-1209(*)/FG to the ac supply.

14. Before Operating Procedures

a. Determine the desired polarity of the output at each panel position (POS. 1 through POS. 8).

b. When positive dc with respect to ground is required, install the plug-in unit associated with that position with the marking POSITIVE at the top. When negative dc with respect to ground is required, install the plug-in unit associated with the position with the marking NEGATIVE at the top. Be sure that the contacts of both plug connectors of the plug-in unit are inserted fully into the jacks on the main chassis assembly (fig. 3 and 4).

Note: On the PP-1209C/FG (Order No. 20291-PP-62 only), it is necessary to remove the plug-in unit retaining strap before the plug-in units can be removed. Be sure to reinstall the retaining strap after the plug-in units are reinstalled.

c. Turn the knobs of all eight output control rheostats (fig. 1 and 2) fully counterclockwise to 0.

d. Connect the loads to the appropriate terminals of the output terminal board (fig. 1, 3, and 4). On the PP-1209/FG (Order No. 26331-Phila-55 only), the output terminal board is vertical (fig. 1). The terminals on the terminal board, top to bottom, correspond with the panel positions left to right. That is, the top terminal of the output terminal board corresponds to position 1, the extreme left-hand position (as viewed facing the front panel). The next to the top terminal corresponds to the second from the left panel position, and so on. On all other models of the PP-1209(*)/FG, the output terminal board is horizontal (fig. 3 and 4) and the terminals are in the same relative positions as the corresponding panel positions, *both as viewed from the rear of the equipment* (facing the output terminal board). That is, the extreme right-hand terminal on the output terminal board corresponds with position 1 on the front panel (the extreme left-hand panel position as viewed facing the front panel), and so on.

15. Operating Procedure

No on-off switch is provided on the PP-1209(*)/FG. The power supply is energized when the ac input cable is connected to the ac supply and the switch (if any) that controls the ac source is in the on position.

a. Starting.

(1) Connect the ac input cable to a 105- to 125-volt, 60-cycle-per-second (cps), ac supply. The ac supply used must be the same as that used to energize the using equipment. If possible, connect the ac input cable to a convenience outlet on the using equipment.

(2) Place the switch that controls the ac input to the power supply in the on position. All of the blown fuse indicators (fig. 1 and 2) should remain unlighted.

(3) The individual dc outputs of the power supply are applied to each load by means of the appropriate control of that particular using equipment involved.

b. Adjustment After Starting. Adjust the current supplied to each load to the required value by turning the knob of the associated output control rheostat slowly clockwise until the required value is obtained.

Caution: **The value of the output current drawn by the load connected at any one output position must not exceed 100 ma.**

c. Precautions During Operation.

(1) Occasionally, check the output current supplied to the load at each position. If adjustment is required, turn the knob of the associated output control rheostat clockwise, if

the value is too low, or counterclockwise, if the value is too high, until the correct output current is obtained.

(2) Watch for a lighted blown fuse indicator, indicating that the associated dc output fuse (F1) has blown. A blown fuse indicates either excessive load current or a short circuit. The cause of the trouble must be determined and corrected before a new fuse is installed.

d. Stopping.

(1) To disconnect the dc input from an individual load, place the appropriate control on that particular using equipment in the off position.

(2) To deenergize the entire power supply, place the switch that controls the ac supply in the off position and disconnect the ac input cable of the power supply from the ac source.

CHAPTER 3
MAINTENANCE INSTRUCTIONS

Section I. GENERAL

16. Scope of Maintenance

a. First Echelon. The maintenance duties assigned to the operator of the PP-1209(*)/FG are as follows:

(1) Daily maintenance service and inspection (para 20).
(2) Cleaning (para 21*a-c*).
(3) Replacement of fuses (F1 and F2). The trouble resulting in a blown fuse must be determined by second or higher echelon personnel before a fuse is replaced.

b. Second Echelon. Organizational (second echelon) maintenance of the PP-1209(*)/FG consists of the following:

(1) Quarterly maintenance services and inspection (para 22 and 23).
(2) Troubleshooting (para 24 and 25).
(3) Touchup painting (para 26).
(4) Replacement of pluckout items (para 27).

17. Tools, Materials, and Test Equipment

No tool or test equipment is required for first and second echelon maintenance. The following materials are required:

a. First and Second Echelon.
(1) Cleaning Compound (FSN 7930-395-9542).
(2) Cleaning cloth (cloth, textile, lintless, FSN 8305-170-5062, or equal).

b. Second Echelon.
(1) Fine sandpaper (Ordnance stock No. 42-P-1154-20, or equal).
(2) Brush (brush, typewriter, Quartermaster stock No. 53-B-26100, or brush, paint, Engineers stock No. 38-4567.300.200, or equal).
(3) Materials for cleaning and repainting (required only if touchup painting is necessary). Refer to TM 9-2851 for information on materials required for touchup painting.

Section II. PREVENTIVE AND PERIODIC MAINTENANCE

18. Preventive Maintenance

a. Preventive maintenance is the systematic care, inspection, and servicing of equipment to maintain it in serviceable condition, prevent breakdowns, and assure maximum operational capability. Preventive maintenance is the responsibility of all echelons concerned with the equipment and includes servicing, inspecting, and testing the equipment and the repair or replacement of parts or subassemblies that inspection and tests indicate probably would fail before the next scheduled periodic inspection.

b. Maintenance forms and records to be used and maintained are specified in TM 38-750. Additional information concerning the submission of specific forms is contained in paragraph 2.

19. Maintenance Service and Inspection Periods

a. First Echelon. First echelon maintenance and inspection of the PP-1209(*)/FG are required on a daily basis unless otherwise directed by the commanding officer. Paragraph 20 specifies maintenance services and inspections that must be accomplished daily and under the following special conditions:

(1) When the equipment is installed initially.
(2) After transportation (van and truck installations).
(3) When the equipment is reinstalled after removal for any reason.
(4) At least once each week when the equipment is maintained in a standby condition.

b. Second Echelon. Normally, second echelon maintenance of the PP-1209(*)/FG will be performed quarterly unless otherwise directed by the commanding officer. Paragraph 23 specifies the maintenance services and inspections that must be performed quarterly. Quarterly maintenance services and inspections should be scheduled to be performed concurrently with the periodic service schedule of the using equipment to reduce out-of-service time to a minimum.

20. Daily Maintenance Service and Inspection Chart

Note: The item numbers in the chart below are not consecutive because they correspond to the item numbers in the quarterly maintenance service and inspection chart (para 23).

Item No.	Procedure		References
	Item	Normal condition or result	
1	PP-1209(*)/FG: Inspect the equipment.	Equipment should be complete, clean, and properly installed and connected for operation.	Appx III; para 21a-c, 12, and 14.
6	*Caution:* **The on-off switches of all using equipments must be in the off position when this item is checked. If this is impractical, omit this item.** OUTPUT CONTROL RHEOSTATS: Check for proper action by rotating the knob of each output control rheostat through its entire range of travel.	Action should be smooth without binding, scraping, or backlash. Knobs should not be loose on shafts.	None.
7	AC INPUT CABLE: See that the ac input cable is connected properly to the ac supply.	Plug of ac input cable should engage contacts of ac supply receptacle snugly.	None.
8	PLUG-IN UNITS: Check to see that the plug-in units are installed properly. On the PP-1209C/FG (Order No. 20291-PP-62), see that the plug-in unit retaining strap is in place.	Plugs of plug-in units should engage jacks of main chassis assembly snugly and fully. On the PP-1209C/FG (Order No. 20291-PP-62), the plug-in unit retaining strap should be installed properly.	None.
10	TERMINAL BOARDS: Inspect the load connections to the dc output terminal board.	All load connections to the dc output terminal board should be clean and tight.	None.

21. Cleaning

Inspect the front panel and the exposed surfaces of the main chassis assembly and the plug-in units. All exterior surfaces should be free of dust, dirt, grease, and fungus. Clean the equipment as follows:

a. Remove dust and loose dirt with a clean, soft cloth.

b. Clean the front panel, blown fuse indicators, output control rheostat knobs, and fuseholder caps with a clean, soft cloth. A cloth *slightly* dampened (not wet) with water may be used if necessary. If water is used, wipe surfaces thoroughly dry with a clean, dry cloth.

Warning: **Cleaning compound is flammable and its fumes are toxic. Do not use cleaning compound near a flame; provide adequate ventilation.**

c. Remove grease, fungus, and ground-in dirt from exterior metal surfaces of the main chassis assembly and plug-in units with a cloth dampened with cleaning compound. Wipe dry with a clean, dry cloth. Do not use cleaning compound to clean the ac input cable and do not allow it to get on any wiring.

d. Remove dust and dirt from jacks and plugs with a brush. Remove corrosion from plug contacts with fine sandpaper and then brush or wipe with a clean, dry cloth.

22. Quarterly Maintenance

Perform all the services listed in the quarterly maintenance service and inspection chart (para 23) in the sequence in which they are listed. When a *normal condition or result* is not observed, refer to the paragraph listed in the *References* column. Record all deficiencies and shortcomings and immediately report to higher echelon those not corrected during the inspection; use the forms and procedures specified by TM 38-750. Equipment that has a deficiency that cannot be corrected by second echelon should be *deadlined* in accordance with TM 38-750.

23. Quarterly Maintenance Service and Inspection Chart

Item No.	Procedure		References
	Item	Normal condition or result	
1	PP-1209(*)/FG: Inspect the equipment for:		
	a. Completeness	a. Equipment should be complete (appx III).	a. None.
	b. Proper installation.....	b. Installation should be in accordance with paragraphs 12 and 14.	b. None.
	c. Cleanliness	c. Equipment should be clean, dry, and free of grease, dirt, rust, corrosion, and fungus.	c. Para 21.
	d. Preservation	d. Painted surfaces should be free of bare spots, rust, and corrosion.	d. Para 2b.
2	PUBLICATIONS: Check to see that pertinent publications are available (appx III).	a. Operator and organizational maintenance manual should be complete and in usable condition without missing pages.	a. Appx III.
		b. All applicable Changes should be on hand.	b. DA Pam 310-4 for requirements.
3	MODIFICATION WORK ORDERS: Check DA Pamphlet 310-4 to determine whether new applicable MWOs have been published.	ALL URGENT MWOs have been accomplished; all NORMAL MWOs have been scheduled.	None.
4	BLOWN FUSE INDICATORS:		
	a. Inspect for damage	a. All blown fuse indicators should be in good condition with no evidence of cracks or other damage.	a. None.
	b. Hand check for looseness	b. All blown fuse indicators should be mounted securely.	b. None.
5	FUSES: Check for proper fuses..	The fuses must be of the values indicated and located as follows:	
		a. Front panel: 1 ea 0.25-ampere dc output fuse (F1) (fig. 1 and 2) in each of eight dc output fuseholders.	a. Para 27.
		b. Front panel: 1 ea 3-ampere ac input fuse in the ac input fuseholder.	b. Para 27.
6	OUTPUT CONTROL RHEOSTATS: Check for proper action by rotating the knob of each output control rheostat through its entire range of travel.	Action should be smooth without binding, scraping, or backlash. Knobs should not be loose on shafts.	None.
7	AC INPUT CABLE:		
	a. Check for clean, tight connections to equipment.	a. Connections should be clean and tight.	a. None.

Item No.	Procedure		References
	Item	Normal condition or result	
	b. Inspect for cracked, worn, frayed, or otherwise damaged insulation, kinks, and strain.	*b.* Insulation should be in good condition; there should be no kinks or evidence of strain	*b.* None.
	c. See that the plug is attached securely and that the contacts are not loose, bent, or corroded.	*c.* The plug should be attached securely; the contacts should be tight and show no evidence of damage or corrosion.	*c.* Para 21*d*.
8	PLUG-IN UNITS: *Caution:* **Before removing a plug-in unit, note whether the word POSITIVE or the word NEGATIVE is at the top. Be sure to reinstall the plug-in unit in its original position.** Remove the plug-in units one at at time and inspect for:		
	a. Loose, bent, or corroded plug contacts and cracked or broken plug shells.	*a.* Plug contacts should not be loose, bent, or corroded, plug shells should not be cracked or broken.	*a.* Para 21*d* and 27.
	b. Insecurely mounted parts	*b.* All parts should be mounted securely.	*b.* Para 27.
	c. Leaking capacitor.....	*c.* Capacitor must show no evidence of leakage.	*c.* Para 27.
	d. Overheated resistors.....	*d.* Resistors should not be discolored; there should be no odor of burning.	*d.* Par 27.
	e. Loose, broken, or corroded connections.	*e.* All visible connections should be clean and tight.	*e.* Para 27.
	f. Broken or damaged wiring ...	*f.* Visible wiring should not be broken; insulation should be in good condition.	*f.* Para 27.
	Warning: **When a selenium rectifier burns out or arcs over, the odor is strong. Provide maximum ventilation immediately. Avoid inhaling the fumes. Do not touch the damaged rectifier until it has cooled.**		
	g. Selenium rectifier (PP-1209/FG only) for damage.	*g.* Plates of selenium rectifier should not be blistered, buckled, or discolored.	*g.* Para 27.
9	JACKS:		
	a. While the plug-in unit is removed (item No. 8), inspect the jacks from which it was removed for looseness and cracked or broken shells.	*a.* Jacks should be mounted securely and shells should not be cracked or broken.	*a.* None.
	b. Carefully plug the plug-in unit into the jacks. Note whether the male plug connector contacts enter the jacks easily and make firm contact with the contact fingers of the jacks.	*b.* Plug connectors of plug-in unit should mate with jacks easily; male contacts should be held firmly by contact fingers of jacks.	*b.* None.
10	TERMINAL BOARDS: Inspect the ac input and dc output terminal boards for cracks, insecure mounting, loose or broken terminals, and loose connections.	Terminal boards should be mounted securely and should be in good condition without loose or broken terminals. Connections should be clean and tight.	None.
11	WIRING: Inspect all visible main chassis wiring for breaks, loose or corroded connections, and damaged insulation.	All visible wiring should be in good condition and connections should be clean and tight.	None.

Item No.	Procedure		References
	Item	Normal condition or result	
12	SPARE PARTS: Check all spare parts (operator and organizational) for general condition and method of storage.	All spare parts should be in good condition and stored properly. There should be no overstock and all shortages should be on valid requisition.	Appx III and TM 11-5805-239-12P.
13	*Caution:* **Before starting the PP-1209(*)/FG, check to be sure that the using equipment is in operating condition and will not be damaged by the application of power.**		
	START:		
	a. Turn all output control rheostat control knobs fully counterclockwise to 0.	*a.* None observable	*a.* None.
	b. Connect the ac input cable to the ac supply (para 15a(1)).	*b.* None observable	*b.* None.
	c. Place the switch that controls the ac input to the power supply in the on position.	*c.* All blown fuse indicators remain unlighted	*c.* None.
14	CHECK THE BLOWN FUSE INDICATORS:		
	a. Remove the extreme left-hand (POS. 1) dc output fuse (F1).	*a.* Blown fuse indicator directly above the fuseholder from which the fuse was removed should light.	*a.* None.
	b. Reinstall the fuse just removed (*a* above).	*b.* Associated blown fuse indicator should go out.	*b.* None.
	c. Repeat the procedure outlined in *a* and *b* above with each of the other seven dc output fuses (F1).	*c.* Same as *a* and *b* above.....	*c.* None.
15	CHECK THE OUTPUT CONTROL RHEOSTATS.		
	Caution: **Do not increase the dc output current beyond the safe limit for the using equipment.**		
	a. Slowly rotate the knob of the extreme left-hand (POS. 1) output control rheostat clockwise.	*a.* Dc output current increases steadily as the knob of the output rheostat control is rotated clockwise.	*a.* None.
	b. Slowly rotate the knob of the output control rheostat counterclockwise to 0.	*b.* Dc output current decreases to 0.	*b.* None.
	c. Repeat the procedure outlined in *a* and *b* above with each of the other seven output control rheostats.	*c.* Same as *a* and *b* above	*c.* None.

Section III. TROUBLESHOOTING

24. General

Troubleshooting of the PP-1209(*)/FG is based on the operational checks contained in the quarterly maintenance service and inspection chart (para 23). To troubleshoot the equipment, perform all operations indicated in items 13, 14, and 15 of the quarterly maintenance service and inspection chart in the order given. If an abnormal condition or result is observed, note the number of the item and refer to the correspondingly numbered item in the troubleshooting chart (para 25). Perform the checks and corrective actions indicated in the troubleshooting chart. If the indicated corrective measures do not eliminate the trouble, higher echelon maintenance is required.

25. Troubleshooting Chart

Item No.	Trouble symptom	Probable trouble	Checks and corrective measures
13	One (or more) blown fuse indicator lights.	a. Associated dc output fuse (F1) defective.	a. Replace dc output fuse (F1) (para 27a) directly below lighted blown fuse indicator.
		b. Poor contact resulting from loose or defective fuseholder cap.	b. Check fuseholder cap for looseness; be sure cap is turned fully clockwise. Replace fuseholder cap if defective.
14	Blown fuse indicator directly above the fuseholder from which the dc output fuse (F1) was removed does not light.	a. Associated plug-in unit defective.	a. Replace plug-in unit.
		b. Blown fuse indicator defective.	b. Higher echelon repair required.
	None of the blown fuse indicators lights when the associated dc output fuse (F1) is removed.	a. Ac input fuse (F2) defective ...	a. Replace ac input fuse (F2) (para 27a).
		b. Poor contact resulting from loose or defective fuseholder cap.	b. Check fuseholder cap for looseness; be sure cap is turned fully clockwise. Replace fuseholder cap if defective.
15	No dc output current when knob of output control rheostat is rotated.	Defective plug-in unit	Replace plug-in unit.
	Dc output current does not increase steadily as knob of output control rheostat is rotated.	Defective output control rheostat .	Higher echelon repair required.

Section IV. REPAIR

26. Touchup Painting

Remove rust and corrosion from painted surfaces by sanding them lightly with fine sandpaper. Brush two thin coats of paint on the bare metal to protect it from further corrosion. Refer to TM 9-2851 for applicable cleaning and refinishing practices.

27. Replacement of Pluckout Items

Note: Items that can be replaced by the operator (first echelon) are listed in the basic issue items list (running spares and accessory items, appx III). Those that can be replaced at second echelon are listed in TM 11-5505-239-12P.

Replace any pluckout item (*a*-*c* below) that is defective or that shows evidence of damage that may result in electrical or mechanical failure before the next scheduled quarterly inspection.

a. Dc output fuses (F1) (0.25 ampere, 250 volts) and ac input fuse (F2) (3.0 amperes, 250 volts).

Note: The trouble that resulted in a blown fuse must be determined before the fuse is replaced.

b. Fuseholder caps.

c. Plug-in units.

CHAPTER 4

SHIPMENT AND LIMITED STORAGE AND DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

28. Preparation for Shipment or Limited Storage

a. Remove the power supply from the rack.

b. Inspect the equipment to see that it is complete (appx III).

c. Coil the ac input cable neatly and tie it with cotton twine.

29. Repackaging for Shipment or Limited Storage

The exact procedure for repackaging the PP-1209(*)/FG depends upon the materials available and the conditions under which the equipment is to be shipped or stored. Whenever possible, adapt the procedures outlined below. The information concerning the original packaging (para 8) also will be helpful.

a. Materials Required. The materials and the approximate quantity of each required for repackaging the PP-1209(*)/FG are given in the chart below. For stock numbers of materials, refer to SB-38-100.

Item	Quantity
Paperboard, wrapping, cushioning.	9 sq ft
Waterproof wrapping paper	10 sq ft
Tape, paper, gummed (2 in. wide)	13 ft
Tape, pressure-sensitive, adhesive, waterproof (2 in. wide).	12 ft
Cotton twine	18 in.
Fiberboard carton (approx 22 by 7 by 6 in.).	1 ea
Lumber for wood shipping box (inside dimensions 25-1/2 by 8 by 7 in.).	10 bd ft (nominal 1-in. lumber).
Strapping, flat, steel (5/8 in. wide by 0.020 in. thk).[a]	8 ft
Strapping seals[a]	As required.

[a] Required for intertheater shipment only.

b. Packaging.

(1) Wrap the spare fuses in paperboard, wrapping, cushioning and seal with gummed paper tape.

(2) Secure the wrapped fuses to the side of the power supply with pressure-sensitive tape.

(3) Cushion the power supply by wrapping in paperboard, wrapping cushioning; secure with gummed paper tape.

(4) Wrap the technical manuals tightly in waterproof wrapping paper and seal all closures with pressure-sensitive tape. Place the wrapped technical manuals on top of the cushioned power supply ((3) above).

(5) Overwrap the cushioned power supply and the technical manuals with waterproof wrapping paper and seal with pressure-sensitive tape.

(6) Place the wrapped power supply in a close-fitting fiberboard carton and seal all seams and closures with pressure-sensitive tape.

c. Packing.

(1) Place the packaged PP-1209(*)/FG (*b* above) in a nailed wood box. Nail on the cover of the wood box.

(2) For intertheater shipment only, strap the wood box with steel strapping secured with strapping seals.

(3) Mark the wood box in accordance with MIL-STD 129B and pertinent instructions in the movement directive.

Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

30. Authority for Demolition

The demolition procedures given in paragraph 31 will be used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accomplished only upon the order of the commander.

31. Methods of Destruction

Use any or all of the methods of destruction given below. The time available usually will be the determining factor in choosing the methods to be used.

a. Smash. Smash the fuses, fuseholders, blown fuse indicators, output control rheostats, plug-in units, terminal boards, and all connectors. Use sledges, axes, handaxes, hammers, crowbars, or other heavy tools.

b. Cut. Cut the ac input cable and all interior wiring. Use axes, handaxes, machetes, or similar tools.

***Warning:* Be extremely careful with explosives and incendiary devices. Use these items only when the need is urgent.**

c. Burn. Burn the technical literature and as much of the equipment as is flammable. Use gasoline, kerosene, oil, flamethrowers, or incendiary grenades.

d. Explode. If explosives are necessary, use firearms, grenades, or TNT.

e. Dispose. Bury or scatter the destroyed parts in slit trenches, foxholes or other holes, or throw them into streams.

APPENDIX I

REFERENCES

The following is a list of applicable references available to the operator and organizational repairman of the PP-1209(*)/FG:

DA Pamphlet 310-4	Index of Technical Manuals, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.
MIL-STD-129B	Marking for Shipment and Storage
SB 38-100	Preservation, Packaging, and Packing Materials, Supplies, and Equipment Used by the Army
TM 9-2851	Painting Instructions for Field Use
TM 11-5805-239-12P	Operator and Organizational Maintenance Repair Parts and Special Tools List: Power Supply PP-1209/FG; PP-1209A/FG; PP-1209B/FG; and PP-1209C/FG
TM 38-750	The Army Equipment Record System and Procedures

APPENDIX II
MAINTENANCE ALLOCATION

Section I. INTRODUCTION

1. General

a. This appendix assigns maintenance functions to be performed on components assemblies, and subassemblies by the lowest appropriate maintenance echelon. It also specifies the tool and test equipment authorized to perform the assigned maintenance functions.

b. Columns in the maintenance allocation chart are as follows:

(1) *Part or component.* This column shows only the nomenclature or standard item name. Components and subassemblies are listed in *top-down* order; that is, a subassembly that is part of a component is listed immediately below that component.

(2) *Maintenance function.* This column indicates the various maintenance functions allocated to the echelons capable of performing the operations.

(a) *Service.* To clean, to preserve, and to replenish lubricants.

(b) *Adjust.* To regulate periodically to prevent malfunction.

(c) *Inspect.* To verify serviceability and to detect incipient electrical or mechanical failure by scrutiny.

(d) *Test.* To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment, such as gages and meters.

(e) *Replace.* To substitute serviceable components, assemblies, or subassemblies for unserviceable components, assemblies, or subassemblies.

(f) *Repair.* To restore an item to serviceable condition by correcting a specific failure or unserviceable condition. This function includes, but is not limited to, welding, grinding, riveting, straightening, and replacement of parts (other than the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes).

(g) *Overhaul.* To restore an item to *completely serviceable* condition as prescribed by serviceability standards developed and published by heads of technical services. This is accomplished by use of the technique of *Inspect and Repair Only as Necessary* (IROAN). Maximum utilization of diagnostic and test equipment is combined with minimum disassembly of the item during the overhaul process.

(3) *1st, 2d, 3d, 4th, 5th echelon.* The symbol X indicates the echelon responsible for performing that particular maintenance operation, but does not necessarily indicate that repair parts will be stocked at that level. Echelons higher than the echelon designated by X are authorized to perform the indicated operation.

(4) *Tools required.* The numbers in this column represent tool and test equipments required to perform the related maintenance function. These numbers are identified in section III, allocation of tools for maintenance functions.

(5) *Remarks.* Entries in this column clarify data cited in the preceding columns.

c. Columns in the allocation of tools for maintenance functions are as follows:

(1) *Tools required for maintenance functions.* This column lists the

tool and test equipments required to perform the assigned maintenance functions.

(2) *1st, 2d, 3d, 4th, 5th echelon.* A dagger (†) indicates the echelon normally allocated the facility.

(3) *Tool code.* This column represents the associated tool or test equipment. They are used in section II, maintenance allocation chart, to refer to the tool or test equipment.

2. Maintenance by Using Organizations

When this equipment is used by signal service organizations organic to the theater headquarters or communications zone to provide theater communications, those maintenance functions allocated up to and including fourth echelon are authorized to the organization operating this equipment.

Section II. MAINTENANCE ALLOCATION CHART

(1) PART OR COMPONENT	(2) MAINTENANCE FUNCTION	(3) 1ST LEVEL	(4) 2ND LEVEL	(5) 3RD LEVEL	(6) 4TH LEVEL	(7) 5TH LEVEL	(8) TOOLS REQUIRED	(9) REMARKS
POWER SUPPLY PP-1209/PG, PP-1209A/PG, PP-1209B/PG, PP-1209C/PG	service	X		X				External parts
	adjust	X		X			1,2	Operational adjustments All adjustments
	inspect	X		X				External parts
	test			X			1,2	Performs resistance, voltage and current measurements to determine condition of circuits
	repair		X		X		1,2	All testing Replacement of power supply sub assemblies only
	overhaul			X	X		2	
POWER SUPPLY SUB ASSEMBLY	replace		X					
	repair			X			2	

Section III. ALLOCATION OF TOOLS FOR MAINTENANCE FUNCTIONS

(1) TOOLS REQUIRED FOR MAINTENANCE FUNCTIONS	(2) 1ST (L) H	(3) 2ND (L) H	(4) 3RD (L) H	(5) 4TH (L) H	(6) 5TH (L) H	(7) TOOL CODE	(8) REMARKS
PP-1209/FG; PP-1209A/FG; PP-1209B/FG; PP-1209C/FG (continued)							
MULTIMETER TS-352/U			F	F	F	1	
TOOL EQUIPMENT TE-50B			F	F	F	2	

APPENDIX III

BASIC ISSUE ITEMS LIST

Section I. INTRODUCTION

1. General

This appendix lists items supplied for initial operation and running spares. The lists includes all items issued as *part of* the major end item and all items authorized for basic operator maintenance of the equipment. End items of equipment are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

2. Columns

Columns are as follows:

a. Source, Maintenance, and Recoverability Code. Not used.

b. Federal Stock Number. This column lists the 11-digit Federal stock number.

c. Designation by Model. Not used.

d. Description. Nomenclature or the standard item name and brief identifying data for each item are listed in this column. When requisitioning, enter the nomenclature and description.

e. Unit of Issue. The unit of issue is the supply term applied to the smallest quantity by which the individual item is counted for procurement, storage, requisitioning, allowance, and issue purposes. When the unit of issue is *each* the column is left blank.

f. Expendability. Nonexpendable items are designated by NX. Expendable items have no designation (column blank).

g. Quantity Authorized. For "Items Comprising an Operable Equipment," the column lists the quantity of each item supplied for the initial operation of the equipment. For "Running Spares and Accessory Items," the quantities listed are those issued initially with the equipment as spare parts. The quantities shown are authorized to be kept on hand by the operator for maintenance of the equipment.

h. Illustrations. The "Figure No." column is not used. Reference designations in the "Item No." column are part-identification designations used on equipment, on illustrations of equipment, and in text to identify parts.

Section II. FUNCTIONAL PARTS LIST

(1) SOURCE MAINTENANCE AND RECOVERABILITY CODE	(2) FEDERAL STOCK NUMBER	(3) DESIGNATION BY MODEL	(4) DESCRIPTION	(5) UNIT OF ISSUE	(6) EXPENDABILITY	(7) QUANTITY AUTHORIZED	(8) ILLUSTRATIONS FIGURE NO	(8) ILLUSTRATIONS ITEM NO
	6808-340-3689	1 2 3 4	POWER SUPPLY PP-1209/FG; PP-1209A/FG; PP-1209B/FG: metallic type; halfwave rectification; 130 v dc, 0 to 100 ma, output; 105 to 124 vac, 60 cyc, single ph input; 19 in lg x 8-1/8 in w x 8-7/32 in h o/a		NOI			
	6150-853-5759		POWER SUPPLY PP-1209C/FG: metallic type; halfwave rectification; 129 v to 135 vdc; 0 to 100 ma; 105 to 125 vac; 60 cyc, single phase; 19 in lg x 5-1 32 in h x 6-7/8 in d; Filter incl; special features, bleeder resistor added to discharge unit and thus reduce shock hazard		NOI			
			ITEMS COMPRISING AN OPERABLE EQUIPMENT					
			POWER SUPPLY PP-1209/FG (BASIC COMPONENT)		NOI	1		
			POWER SUPPLY PP-1209A/FG (BASIC COMPONENT)		NOI	1		
			POWER SUPPLY PP-1209B/FG (BASIC COMPONENT)		NOI	1		
			POWER SUPPLY PP-1209C/FG (BASIC COMPONENT)		NOI	1		
			TECHNICAL MANUAL TM-6808-539-12			2		
	Ord then ACC		RUNNING SPARES AND ACCESSORY ITEMS					
	5920-043-9641		FUSE, CARTRIDGE: 0.55 amp, 250v; MIL type FOSCR250A (Not mounted)			10		F1
	5920-010-6469		FUSE, CARTRIDGE: 3 amp, 250v; MIL type FOSC3B00A (Not mounted)			5		F2

By Order of Secretary of the Army:

EARLE G. WHEELER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

DASA (6)
USASA (2)
CNGB (1)
CofEngrs (1)
TSG (1)
CSigO (5)
CofT (1)
USA CD Agcy (1)
USAATBD (1)
USCONARC (5)
ARADCOM (2)
ARADCOM Rgn (2)
OS Maj Comd (3)
OS Base Comd (2)
LOGCOMD (2)
MDW (1)
Armies (2)
Corps (2)
USA Corps (3)
USATC AD (2)
USATC Engr (2)
USATC Inf (2)
USATC FA (2)
USATC Armor (2)
Instl (2) except
Ft Monmouth (63)
USAOMC (4)
Svc Colleges (2)
Br Svc Sch (2)
GENDEP (OS) (2)
Army Dep (2) except
Sacramento (17)
Sig Sec, GENDEP (OS) (5)
Sig Dep (OS) (12)
USA Strat Comm Agcy (4)
WRAMC (1)
USA Trans Tml Comd (1)
Army Tml (1)
POE (1)
OSA (1)
USAEPG (2)
AFIP (1)
AMS (1)
Army Pic Cen (2)
EMC (1)
USASSA (25)
USASSAMRO (1)
USARCARIB Sig Agcy (1)
USA Sig Msl Spt Agcy (13)
Sig Fld Maint Shops (3)
Def Log Svc Cen (1)
Units org under fol TOE (2 cy ea UNOINDC)
11-7
11-16
11-57
11-97
11-98
11-117
11-155
11-157
11-500 (Tms AA-AE) (4)
11-557
11-587
11-592
11-597
32-52
32-56

NG: None.
USAR: None.
For explanation of abbreviations used see AR 320-50.

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